



ABLE POWER PRODUCTS

LED Surge Protection & Over/Under Voltage Control Experts



**INNOVATIVE
SURGE PROTECTION &
OVER/UNDER VOLTAGE
CONTROL SOLUTIONS FOR
INTELLIGENT ROADWAYS
AND SMART CITIES**

PARKING LOT LIGHTING
Fast Plugin Surge Protection

BUS & TRAIN LIGHTING
Retrofit Surge Protection

STADIUM LIGHTING
Hardwired Surge Protection

ARCHITECTURAL LIGHTING
Hardwired Surge Protection

PARK LIGHTING
Hardwired Surge Protection

HIGHWAY LIGHTING
Photocell Surge Protection

STREET LIGHTING
Shorting Cap Surge Protection



ABLE POWER PRODUCTS

8618 Phoenix Drive, Manassas VA 20110
800.335.8969 | sales@ablepowerproducts.com

Over/Under Voltage Cut-Off with Safe Restore™

The OVCD extends the life of your light fixture's drivers and controls by eliminating temporary over and under voltages that can harm sensitive electronic components. The OVCD will instantly drop power during an over or under voltage condition and then, utilizing the patented Safe Restore™ technology, will auto-reset when voltage returns to normal. For volume purchases voltage settings can be customized to your requirements.



**OVCD-120-HW
OVCD-230-HW
OVCD-277-HW**

OVCD-230-DR

OVCD-277-DR

Feature	OVCD-120-HW OVCD-230-HW OVCD-277-HW	OVCD-230-DR	OVCD-277-DR
Dinrail Mount		■	■
Tab Mount	■		
Green LED ON** Denotes Input Power ON	■	■	■
Red LED Light ON** Denotes Over/Under Voltage Condition	■	■	■
Reset Time	90 Seconds	60 Seconds	180 Seconds
Over-Voltage Value	160, 270, 315	AC270V±5V	AC317V±5V
Under-Voltage Value	90, 190, 237	AC190V±5V	AC237V±5V
Operating Voltage	120, 230, 277V	230V	277V
Working Current	7A	40A	5A
UL 1449 4 th Edition	■	■	■

Excellence in Product Performance and Longevity Through Innovation

ABLE Power Products offers a full line of solutions for designing, retrofitting or upgrading your LED lighting installations. We provide easy step-by-step design options and retrofit customization, utilizing our design engineers, our world-class manufacturing facility and our UL certified design center.



Combined GDT / MOV Circuit

This circuit uses each component to do what each does best: the gas discharge tube diverts the high energy portion of the transient and the MOV provides the fast, accurate clamping of the low energy leading edge.



Safety Thermal Fusing

We manufacture the Thermally Fused Metal Oxide Varistors (TFMOV) used in all of our Surge Protection Devices (SPDs). This safety feature distinguishes us from the competition and prevents overheating and catastrophic failure.



Hybrid Gas Discharge Tube (GDT)

Gas tubes eliminate MOV current leakage which extends the life of your surge protector and protected equipment.



Surge Protection Selection Criteria



Voltage Protection Rating (VPR)

VPR is a measure of the surge protector's "let-through" voltage, which is the maximum voltage a surge protector passes through to connected devices. During a surge event, the surge protector provides a clamping envelope around the electrical sine wave reducing let-through voltage. The lower the VPR number, the better the protection. The ABLE Power family of surge protectors has the lowest VPR in the industry.



All Protection Modes L-N, N-G, L-G

IEEE modes of protection: electrical paths where the SPD offers defense against transient overvoltages. For a single phase AC powered SPD connecting to line, neutral, and ground conductors, the modes of protection shall be line-to-neutral (L-N), line-to-ground (L-G) and neutral-to-ground (N-G).



Parallel or Series Circuit Option

Series Circuit

- Surge protector in series with the load
- Failed surge protector disconnects power to the load
- Equipment isolated from future surges

Parallel Circuit

- Surge protector in parallel with the load
- Failed surge protector does not disconnect power
- Equipment vulnerable to future surges



Diagnostic Indicator Light

If the surge light is off, the surge protector has either received a powerful enough electrical surge (s) that damaged the MOV inside, or normal fluctuations in electricity caused minor power surges and have worn out the MOV. The surge protector needs to be replaced.



IP 66

IP rated as "dust tight" and protected against heavy seas or powerful jets of water.



UL 1449 4th Edition

The newly issued UL 1449 4th Edition is the standard for safety and is the preferred standard for all AC surge protection devices (SPDs).



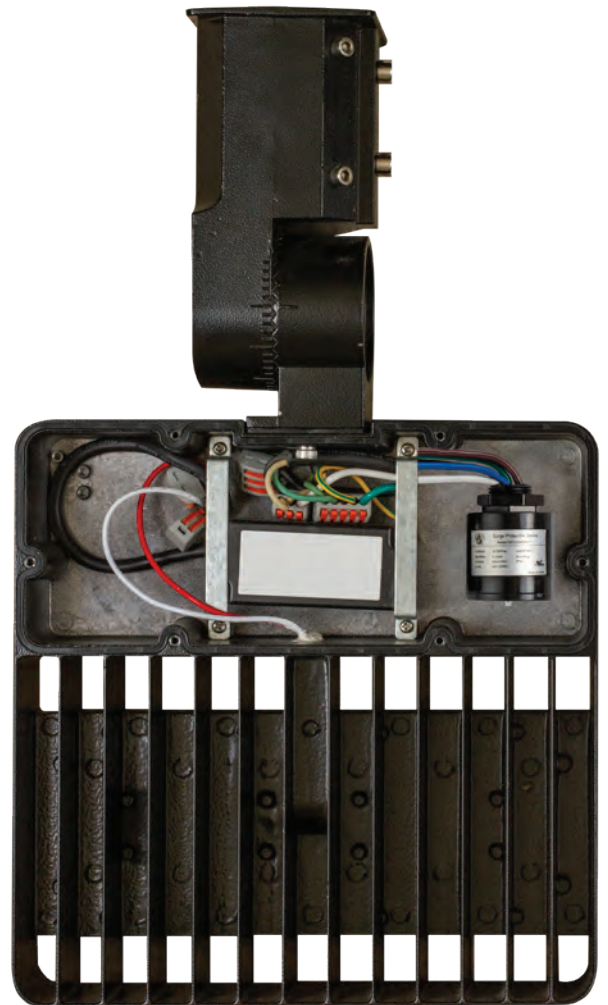
Hardwired Surge Protection Devices

These Surge Protective Devices (SPDs) are the ideal solution for protecting street and roadway lighting, parks and stadium lights, parking lots and walkway lighting. This technology is especially valuable in high-risk areas or problem sites due to lightning activity or power related problems like blackouts and utility grid-switching.

The key benefits to using SPDs include extending the life of drivers and controls, reducing maintenance and service costs, and minimizing fixture downtime which all equate to increased customer satisfaction.

Key Features

- Small Footprint Freeing Up Valuable Fixture Space
- Ideal for OEM Design-In Applications
- Competitive Specifications
- Competitive Price Points



Hardwired Surge Protection Devices

Our hardwired surge protectors have a small footprint and feature safety thermal fusing, low clamping levels, and all-mode protection. This line offers compact installation, freeing up valuable housing space.



**SPB05K Series,
Thermally-fused
MOVs 10kV Uoc**



**SD05K Series,
Thermally-fused
MOVs 10kV Uoc**



**SD10C Series,
Thermally-fused
20kV Uoc**

Feature

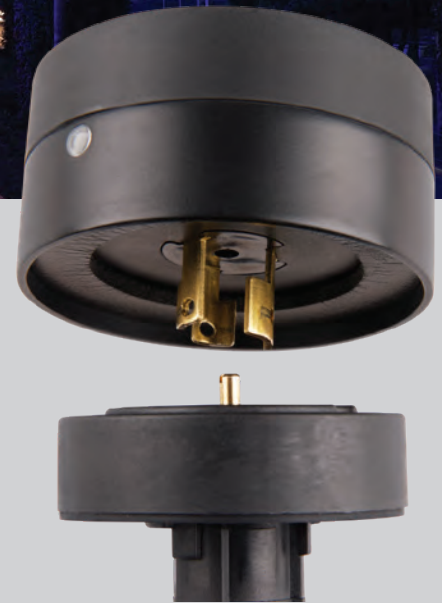
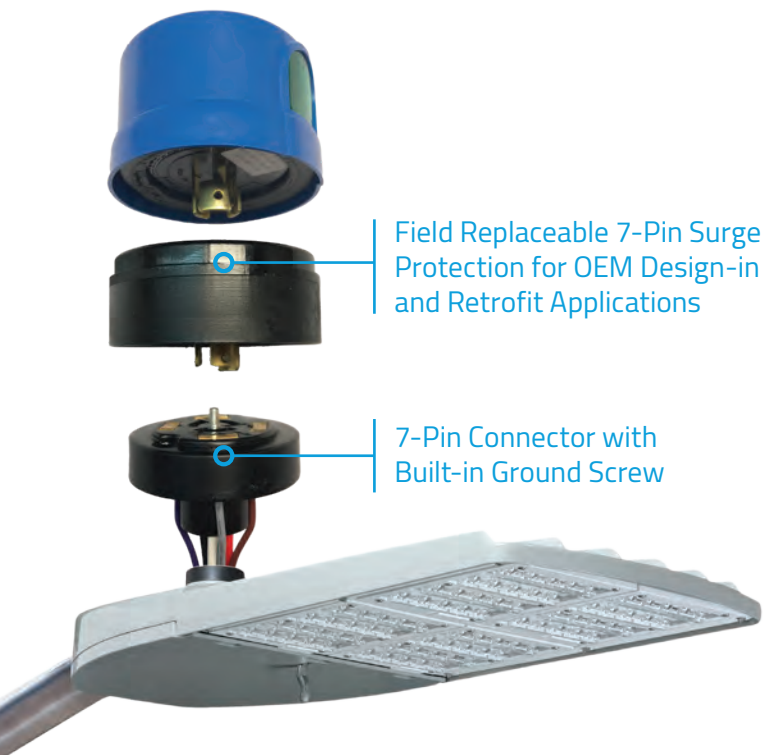
Gas Discharge Tube Option		■	■
Small Footprint, Compact Installation	■	■	
Maximum Surge Capacity	10kA I_{max}	10kA I_{max}	10kA, 15kA or 25kA I_{max}
Nominal Discharge Current	5kA I_n	5kA I_n	10kA I_n
Maximum Overvoltage Current	10kV U_{oc}/V_{max}	10kV U_{oc}/V_{max}	10kV or 20kV U_{oc}/V_{max}
Operating Voltage	277V, 480V	277V	277V, 480V
UL 1449 4 th Edition	■	■	■
Series and Parallel Options Available	■	■	■
Mounting Tab		■	
Mounting Bracket Included			■
Diagnostic Indicator		■	■
VPR Rating	AP5P277 1200V AP5S277 1200V AP5P480 1500V AP5S480 1500V	AP5P230MG 1300V AP5S230MG 1300V AP5P277MG 1300V AP5S277MG 1300V AP5P277G 1300V AP5S277G 1300V AP5P277L 1200V AP5S277L 1200V	AP10P277G 1300V AP10S277G 1300V AP10P277L 1150V AP10S277L 1150V AP10P480G 1800V AP10S480G 1800V AP10P480L 1600V AP10S480L 1600V AP10P277GH 1300V AP10S277GH 1300V AP10P277LH 1150V AP10S277LH 1150V AP10P480GH 1800V AP10S480GH 1800V AP10P480LH 1600V AP10S480LH 1600V



Receptacle Surge Protection

As the LED lighting industry continues its Smart City transformation, photocells, controls and sensors are becoming smarter, more sophisticated, more critical and more valuable.

To keep pace with this evolving technology, surge protection companies need to constantly re-invent themselves and develop innovative new products and components to support this transformation.



Patented Design

Our latest innovation was created with evolving technology in mind. Our patented 3-pin and 7-pin receptacles have a unique grounding system that when used with our fast plug-in surge module will remove electrical disturbances from the system before they can cause damage or downtime. In addition to providing premium protection for the drivers and controls, placing the surge device outside the fixture makes it more accessible, serviceable, and ideal for retrofit applications.

Key Features

- Patented 7-Pin Receptacle with Ground Connection
- Surge Protectors Installed Outside the Fixture
- Modular, Replaceable, Accessible

Design-in Receptacle Surge Protection

The design-in surge line includes a fast plugin surge module, a photocontrol surge module, and a shorting cap surge module with a unique patented ground design used in conjunction with our patented 7-pin and 3-pin grounded receptacle. This is ideal for OEM's providing solutions for roadway and street lighting applications.

Fast Plugin Surge Module

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V



Photocontrol Surge Protector

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V



Shorting Cap Surge Protector

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating Voltage: 120V, 277V, 347V, 480V
- Diagnostic Indicator



3-Pin and 7-Pin Receptacle

- Patented Design with Grounding Pin and Ground Wire
- For Use with Fast Plugin Surge Module, Photocontrol Surge Protector, and Shorting Cap



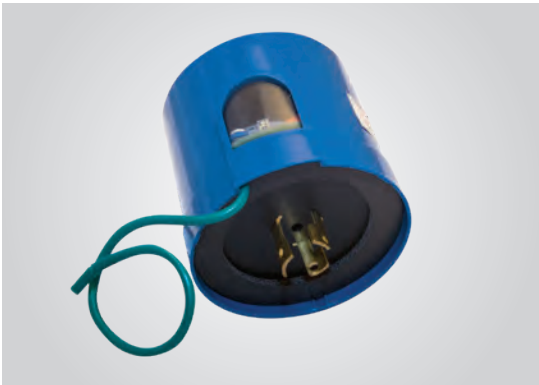
Retrofit Receptacle Surge Protection

The retrofit surge line includes a fast plugin surge module, a photocontrol surge protector, and a shorting cap surge protector, and all with external ground wires for connection to the lighting fixture housing. Ideal for DOTs, municipalities, and utilities that have identified high risk areas or troubled sites due to lightning issues or power related problems.



Fast Plugin Surge Module with External Ground Wire

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V
- Diagnostic Indicator



Photocontrol Surge Protector with External Ground Wire

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V
- Diagnostic Indicator



Shorting Cap Surge Protector with External Ground Wire

- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V
- Diagnostic Indicator

Receptacle w/Built-In Surge Protection



- 10kA, 15kA or 25kA I_{max} Surge Capacity
- 5kA or 10kA I_n Nominal Discharge Current
- 10kV or 20kV U_{oc}/V_{max} Overvoltage Current
- Operating voltage: 120V, 277V, 347V, 480V
- Compatible with Standard Photocontrol and Shorting Caps
- Diagnostic Indicator



**Surge Protection Design Center
and Manufacturing Campus
361101 Xiamen P.R. China**

As founders of ABLE Power Products, we have served the industrial, commercial, and utility markets for a combined 50 years by providing innovative surge protection technology and services.

We strongly believe that our customers are our most valuable asset. Unlike many of our larger competitors, we believe in working for our customers and conforming to meet their needs. We stand ready to assist and support our customers in any way possible with their own unique and urgent challenges.



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